PERSONNEL QUALIFICATIONS

Note: Key personnel are indicated with an asterisk*.

The Naval Research Laboratory (NRL) established a representative matrix of the labor categories and skills to which the contractor shall propose. Resumes shall use the same labor category headings to relate the experience of the candidates to the standards set forth below. If the contractor uses a labor category terminology other than that used in this provision, the contractor must provide a matrix clearly relating their proposed labor categories to those in the provision. Only one resume per key category is required. The proposed personnel shall be available for work efforts on the first day after contract award. Personnel designated as key personnel must possess or be capable of obtaining a Sensitive Compartmented Information (SCI) clearance. It is further desired that all non-key personnel also be capable of obtaining the same. The following pages contain the desired qualifications for each of the required labor categories

Systems Engineer*

Education/Experience - Bachelors degree from an accredited university or college in Engineering, Mathematics or Computer Science; or Associates degree in Engineering or a related physical science combined with roughly ten (10) years, or more, of applicable experience. A graduate degree in a systems engineering program is desirable. At least five (5) years of experience providing systems engineering support for space and/or communications systems is preferable. Systems engineering experience with space and aviation systems is particularly desirable. Experience in the area of maintaining and enhancing high-speed network systems using existing platforms or developing new network systems is necessary. Knowledge, familiarity, and capability to worked in a mixed signal environment (digital, analog, RF) highly desirable.

Typical Assignments -

A. After reviewing system specifications, interface control documents, and other appropriate documents, assists subsystem lead personnel in the development of system specifications.
B. Makes or influences decisions regarding the redesign or reconfiguration of systems or subsystems after evaluating existing or proposed requirements.
C. Directs or conducts research and prototyping necessary for the development of new systems or the enhancement of existing systems.
D. Using sound engineering judgment and taking into account such factors as performance, cost, and reliability, develops new systems or enhances existing systems by assembling or integrating component subsystems.
E. Ensures system compatibility by developing or conforming to existing communication protocols and interface standards. Ensures that these standards and protocols are implemented in new system and/or subsystem designs.
F. Prepares or supervises the preparation of engineering drawings and documentation relative to design activities.
G. Provides technical assistance and guidance to subordinates and superiors in conjunction with ongoing design activities.

Electrical Engineer*

Education/Experience - Bachelors degree from an accredited university or college in Engineering or an Associates degree in Engineering or a related physical science combined with roughly ten (10) years, or more, of applicable experience. Candidates with additional training/education in the areas of radio frequency (RF), microwave, millimeter wave, field-programmable gate array (FPGA) firmware design, high-speed interconnect (LVDS, PCIe, RocketIO, Thunderbolt, USB 3.0) are highly desirable. Knowledge and proficiency in digital signal processing also desirable. At least five (5) years of experience providing electrical engineering support for space and/or communication systems is preferable. Experience in designing high reliability hardware aerospace systems or tactical communications systems is particularly desirable. Engineers should have relevant experience in their area of expertise, RF, digital, or analog/power. Candidates with mixed-signal experience are highly desirable. All candidates should have cross-over capability and familiarity with test equipment and frameworks for designing, automating, and conducting automated test.

Typical Assignments -

A. Directs or conducts research necessary for the development of new systems or the enhancement of existing systems.
B. Using sound engineering judgment and established design practices, designs and develops new electronic circuits and subsystems to meet established specifications and requirements.
C. Tests and evaluates circuits and subsystems to ensure compliance with compatibility and performance specifications. Determines the source and corrects all anomalies discovered during testing. Ensures the reliability of new designs.
D. Prepares or supervises the preparation of engineering drawings and documentation relative to design activities.
E. Provides technical assistance and guidance to subordinates and superiors in conjunction with ongoing design activities.
F. Utilizes design tools to ensure compliance of systems designed to the requirements stated
G. Utilizes engineering judgement, past experience, and technical data to present engineering design trades.

Computer Scientist*

Education/Experience - Bachelors or Advanced degree in Mathematics, Engineering, Computer Science, or some other appropriate field; or corresponding Associates degree combined with a minimum of roughly six (6) years, or more, of applicable experience. At least five (5) years of experience developing algorithms and software for aerospace and/or communication systems is preferable. Systems engineering experience unattended/unmanned payloads, test equipment and ground stations is particularly desirable.

Typical Assignments -

A. Applies a broad range of programming concepts to assignments of a complex and sophisticated nature to solve scientific and/or engineering problems through the use of data processing equipment.
B. Under minimal supervision, exercises appreciable latitude for actions or decisions in meeting the requirements of task assignments. Acts as programming leader under higher management direction to accomplish task assignments as required.
C. Analyzes system specific actions to obtain direction for programming activities and may, if required, provides subsystem specifications to further augment satisfactory job completion.
D. Employs structured techniques in all phases of software development.
E. Designs and codes software.
F. Tests and debugs programs and prepares operating procedures to guide operators.
G. Evaluates and modifies existing programs using improved techniques or incorporating new system requirements or equipment configurations.
H. Provides technical assistance and guidance to subordinates and superiors in conjunction with ongoing activities.
I. Provides for comprehensive algorithm and software design. This includes concept development, employment, interfaces, and execution.
J. Utilizes careful coding to ensure it meets industry and DoD best practices for reliability and security purposes
K. Provides for diligent coding and confirmation management
L. Works well with other team members in larger programming efforts

Computer Specialist*

Education/Experience - Bachelors degree in Mathematics, Engineering, Computer Science or some other appropriate field; or corresponding Associates degree combined with a minimum of roughly four years, or more, of applicable experience. At least Five (5) years of experience generating software for space and/or communication systems is preferable. Experience with aerospace systems and other real-time systems is particularly desirable. Experience in the area of maintaining and enhancing high-speed network systems using exiting platforms or developing new network systems is necessary.

Typical Assignments -

A. Designs and implements non-routine software programs in the following application areas: operating systems; command, control and communication systems; and engineering or scientific applications.
B. Confers and collaborates with system analysts, customers, other entities in systems and/or application planning and accomplishment.
C. Employs structured techniques in designing, coding, testing, and documenting programs.
D. Designs and codes programs.
E. Tests and debugs programs and prepares procedures to guide operators.
F. Originates programming documentation and updates it as required.
G. Evaluates and modifies existing programs using improved techniques or taking into account changes in system requirements or equipment configurations.
H. Develops simulated data for test purposes.

Electronics/Mechanical Technician

Education/Experience - Associates degree in Engineering, Computer Science, or Mathematics, or some other appropriate field, or roughly two (2) years, or more, of equivalent applicable experience. Should have NASA or other appropriate certifications for their skill level in building electronic equipment. Specialized equipment operation may be necessary such as EMI/EMC chambers, thermal or vibration systems, manufacturing systems, etc. At least one (1) year of experience providing support to space and/or communications systems is preferable. Experience with COTS hardware integration is particularly desirable.

Typical Assignments -

A. Performs a variety of complex technical duties, including systems modification, troubleshooting, tests, and major repairs on electronic and electro-mechanical equipment, as a part of a maintenance and operations process. Work requires an in-depth knowledge of electronic theory and practices.
B. Reads and interprets schematic and wiring diagrams, wave forms and diagnostic results, assembly drawings and specifications, and relates these to overall system performance or malfunctions.
C. Disassembles and reassembles complex equipment for the repair or replacement of defective parts, wiring, and electrical or mechanical units.
D. Assembles and fabricates systems from the component-level, using correct wire wrap, solder, and assembly techniques.
E. Assists in the design of electronic circuits and mechanical modifications to permit successful interfacing of equipment to related systems.
F. Inspects, tests, and advises on the operation and troubleshooting of equipment such as computer systems and associated peripheral hardware.
G. Directs or coordinates the work of other technicians, as assigned.

Program Manager*

Education - Bachelors and/or Masters degree from an accredited university or college combined with roughly ten years, or more, of applicable experience. At least five (5) years of experience providing management support for aerospace and/or communication systems is preferable. Experience with payload and tactical communications development programs is particularly desirable.

Typical Tasks -

A. Develops program plans for the successful execution of new or existing technology development efforts. Ensures that adequate resources are available to complete the efforts.
B. Develops Cost Work Breakdown Structures (CWBS), schedules, budgetary estimates for tracking the technical and financial performance of new or existing development efforts.
C. Makes or influences decisions regarding the design or reconfiguration of systems or subsystems after evaluating existing or proposed system requirements.
F. Monitors the technical performance of ongoing activities. Reassigns or adjusts resource priorities to ensure the timely completion of projects.
G. Manages the efforts of the managerial, technical and administrative personnel assigned to complete various aspects of ongoing or new projects.
H. Deals directly with the customer and is responsible for maintaining good relations with the customer as well as fostering good inter-company relations where applicable.

Mechanical Engineer*

Education/Experience - BS degree in engineering or applied science with at least three (3) years of related experience is preferable. In lieu of formal education, roughly ten (10) years, or more, of directly related work experience is acceptable.

Typical Tasks -

A. Performs a variety of engineering work in planning and design of products, tools, engines, machines and other mechanically functioning equipment and mechanical industrial processes, including thermodynamic and fluid systems.
B. Oversees production, installation, operation, maintenance and repair of such equipment.
C. Works with electrical engineers in the design and development of electro-mechanical devices and components. Works with aerospace engineers in the design and development of mechanical, environmental, and ordnance subsystems for aerospace vehicles, such as satellites. Related or sub-engineering disciplines in this position category: industrial engineering, metallurgical/materials engineering, nuclear engineering, optical engineering and production/processing engineering.
D. Supports MoM and other analysis techniques to design mechnical systems capability of surviving specificed vibration environments
E. Develops test plans and test fixtures suitable for testing design to their limits
F. Support analysis techniques to design thermal systems necessary to ensure that electronics are maintained in the proper thermal enviroment.
G. Develops test plans and test fixtures suitable for thermal testing of designs to their limits
H. Teams well with the electrical engineers in accomplishing mechanical designs that also encompass related electrical needs, such as EMI/EMC compatibility.

Responsibilities of Position

Performs various administrative projects/assignments which may require the development of new solutions to department/site operational issues.
Implements management directives and adapts internal systems and procedures to enhance operating efficiencies, in support of operating objectives.

Prepares and analyzes data, such as budget/cost estimates, contract specifications, flow charts, and labor hour estimates.
Maintains department/site databases and statistical spreadsheets.
May serve as department/site training coordinator. Administers or assists in the administration a financial management system including financial planning, budgeting, etc. by applying sound accounting principals. May conduct physical inspections of equipment, track/maintain inventory records and prepare related topics. May maintain personnel records for department/site including leave records, salary actions, expense reports, etc. ensuring compliance with company policies and procedures.

Experience with and knowledge of MILSTD and DoD Standards, plus 5 years experience, or more, is preferable. It is highly desirable to hold a Certified Configuration Specialist certificate from the American Defense Preparedness Association. Identifies, controls, status accounting; and audit/review requirements of CM discipline.

Knowledgeable of management controls.

Provides all levels of CM support to Program/Project Managers. Assist with the identification of configuration items. Updates configuration control processes as required. Performs status reporting. Supports audits and reviews, distributes minutes of same and track action items. Decisions may impact program/department expenditure of resources. Exhibits full use and application of standard business administration principles and practices. Frequently deals with multiple problems at the same time. Resolves administrative/operational issues in primary functional area. Minimal customer influence. Performs all other duties as assigned.

Project Coordinator*

Education/Experience -

Bachelors degree in Accounting or Business Administration; or corresponding Associates degree; or roughly three (3) years of applicable experience is desired.

Typical Assignments -

A. Establishes an operational plan for the completion of assigned tasks including scheduling, staffing, materials, and facilities to meet contract requirements at minimum cost.
B. Monitors the technical performance, progress, and fiscal status of tasks on a continuing basis and takes management action to correct any deficiencies at the earliest possible time.
C. Makes recommendations for the origination or augmentation of policies and procedures to meet specific needs of the customer.
D. Monitors wage and salary budgets and expense account data to effect control of established budget factors and policy limitations.
E. Ensures that fiscal responsibilities are in compliance with Government and program requirements. Audits accounts.
F. Keeps government customers updated with the project status at a detailed level.
G. Works with the ensure team to keep schedules up to date

CAD Operator/Specialist

Education/Experience - Associates degree in Electro-mechanical Drafting with associated special courses in the use and application of computer-aided design techniques or equivalent experience is desired. A preferable minimum of five (5) years experience as a CAD designer using analog, digital and surface-mount design techniques when performing layout of high-density boards is desired. Knowledge of Mentor and or AUTOCAD operating systems and ORCAD schematic capture system is desirable. Experience with Mechanical Desktop, Inventor and Solid Works is also desirable.

Typical Assignments -

A. Interface with mechanic packaging engineering.
B. Coordination with electrical engineering on specific requirements.
C. Develop component identification schemes and symbols for including in the CAD Library
D. Maintain the CAD Library.
E. Checking designs to ensure compliance with all standards.
F. Interface with drafting on all assembly drawings.
G. Build and maintain the Bill of Materials in concert with the project coordinator
G. Supply documentation packages to Configuration Control before release.

Senior Electrical/RF Engineer

Education/Experience - Bachelors degree from an accredited university or college in Engineering or an Associates degree in Engineering or a related physical science combined with roughly ten (15) years, or more, of applicable experience is desired. Candidates with ten (10) years of experience, or more, in the areas of radio frequency (RF), microwave, and millimeter wave systems are strongly preferable. Additional experience with digital technologies, such as field-programmable gate array (FPGA) firmware design and high-speed interconnect (LVDS, PCIe, RocketIO, Thunderbolt, USB 3.0) design is a plus. Knowledge and proficiency in digital signal processing is also preferable. At least ten (10) years of experience providing electrical engineering support for space and/or communication systems is desirable. Experience in designing high reliability hardware aerospace systems or tactical communications systems is particularly desirable. All candidates should have cross-over capability and familiarity with test equipment and frameworks for designing, automating, and conducting automated test.

Typical Assignments -

A. Directs and conducts research necessary for the development of new systems or the enhancement of existing systems.
B. Using sound engineering judgment, established design practices, and past experience, designs and develops new electronic circuits and subsystems to meet established specifications and requirements.
C. Tests and evaluates circuits and subsystems to ensure compliance with compatibility and performance specifications. Determines the source and corrects all anomalies discovered during testing. Ensures the reliability of new designs.
D. Prepares or supervises the preparation of engineering drawings and documentation relative to design activities.
E. Provides technical assistance and guidance, drawn from past RF and electrical experience, to subordinates and superiors in conjunction with ongoing design activities.
F. Utilizes design tools to ensure compliance of systems designed to the requirements stated
G. Utilizes engineering judgement, past experience, and technical data to present engineering design trades.